This document gives pertinent information concerning the reissuance of the Virginia Pollutant Discharge Elimination System (VPDES) Permit listed below. This permit is being processed as a Minor, Industrial permit. The discharge results from the operation of a 490 megawatt (MW) simple-cycle combustion turbine electrical generating facility. This permit action consists of updating the proposed effluent limits to reflect the current Virginia Water Quality Standards (effective January 6, 2011) and updating permit language as appropriate. The effluent limitations and special conditions contained in this permit will maintain the Water Quality Standards (WQS) of 9VAC25-260-00 et seq.

1.	Facility Name and Mailing Address:	Old Dominion Electric Cooperative - Louisa Generation Facility 4201 Dominion Boulevard Glen Allen, VA 23060	SIC Code :	4911 – Electric Power Generation
	Facility Location:	3352 Klockner Road Gordonsville, VA 22942	County:	Louisa
	Facility Contact Name:	Mr. Davis Phaup	Telephone Number:	(804) 290-2190
	Facility E-mail Address:	DPhaup@odec.com		
2.	Permit No.:	VA0091332	Expiration Date of Previous Permit:	August 11, 2013
	Other VPDES Permits associated with this facility:		None	
	Other Permits associated with this facility:		Air – Registration Number 40989 (Title V) Hazardous Waste – VAR000505529	
	E2/E3/E4 Status:	Not Applicable		
3.	Owner Name:	Old Dominion Electric Cooperative (ODEC)		
	Owner Contact/Title:	Mr. Davis Phaup / Environmental, Health and Safety Coordinator		
	Telephone Number:	(804) 290-2190		
	Owner E-mail Address:	DPhaup@odec.com		
4.	Application Complete Date:	December 19, 2012		
	Permit Drafted By:	Susan Mackert	Date Drafted:	June 7, 2013
	Draft Permit Reviewed By:	Alison Thompson	Date Reviewed:	June 21, 2013
	Public Comment Period :	Start Date: July 12, 2013	End Date:	August 12, 2013

5. Receiving Waters Information:

Receiving Stream Name :	UTs to Happy Creek*	Stream Code:	8-XHT**
Drainage Area at Outfall:	0.03 square miles**	River Mile:	0.27 (Outfall 001) / 0.71 (Outfall 002)**
Stream Basin:	York	Subbasin:	Not Applicable
Section:	3	Stream Class:	III
Special Standards:	None	Waterbody ID:	VAN-F01R
7Q10 Low Flow:	0 MGD	7Q10 High Flow:	0 MGD
1Q10 Low Flow:	0 MGD	1Q10 High Flow:	0 MGD
30Q10 Low Flow:	0 MGD	30Q10 High	0 MGD
Harmonic Mean Flow:	0 MGD	30Q5 Flow:	0 MGD

It is staff's best professional judgement that based on a drainage area of five square miles or less, critical flows will be equal to zero.

*UT – Unnamed Tributary

**Staff did not request receiving waters information for Outfall 002 as this outfall does not frequently discharge. Given there have been no changes in the location of the outfall, it is staff's best professional judgement that the rivermile and drainage area information provided in the previous reissuance remains accurate.

6. Statutory or Regulatory Basis for Special Conditions and Effluent Limitations:

✓	State Water Control Law	___	EPA Guidelines
✓	Clean Water Act	✓	Water Quality Standards
✓	VPDES Permit Regulation	___	Other
✓	EPA NPDES Regulation		

7. Licensed Operator Requirements: Not applicable

8. Reliability Class: Not applicable

9. Permit Characterization:

✓	Private	✓	Effluent Limited	___	Possible Interstate Effect
___	Federal	✓	Water Quality Limited	___	Compliance Schedule Required
___	State	___	Whole Effluent Toxicity Program Required	___	Interim Limits in Permit
___	WTP*	___	Pretreatment Program Required	___	Interim Limits in Other Document
___	TMDL*				

*WTP = Water Treatment Plant

*TMDL = Total Maximum Daily Load

10. Storm Water and Industrial Wastewater Sources and Treatment Description:

The Old Dominion Electric Cooperative - Louisa Generation Facility is an existing natural gas fired simple cycle power station. Simple cycle units are typically used for peak power generation and operate only during high energy demand periods. The facility utilizes one General Electric model 7FA combustion turbine and four General Electric model 7EA combustion turbines generating a combined 490 MW. Water needed for facility operations is withdrawn from Bowlers Mill Lake (also known as Lake Gordonsville). All industrial process wastewater is sent to the Rapidan Service Authority's Gordonsville Sewage Treatment Plant (VA0021105) for treatment and discharge. A description of storm water and allowable non-storm water sources is provided in more detail below.

TABLE 1 – Generation Units

Generating Unit	Fuel Source*	MW Generation
Unit 1	Natural Gas	80 MW
Unit 2	Natural Gas	80 MW
Unit 3	Natural Gas	80 MW
Unit 4	Natural Gas	80 MW
Unit 5	Natural Gas	170 MW

*Fuel oil is utilized as a back-up.

Storm Water Retention Pond / Outfall 001

The storm water retention pond is located in the northwest portion of the facility. The retention pond receives storm water runoff from two internal outfalls located within the combustion turbine and fuel oil tank areas. These internal outfalls are discussed in more detail below. The total area drained is approximately 31 acres with approximately 10 acres of impervious surface.

The retention pond is designed to reduce flow velocity and to provide for the settling of solids. The retention pond discharges to an unnamed tributary to Happy Creek via Outfall 001. A boom is installed prior to the outfall to contain any floating oil that may be present.

Outfall 002

Outfall 002 receives storm water runoff from the area surrounding the administration building and discharges to a different unnamed tributary to Happy Creek than Outfall 001. The total area drained is one acre, all of which is impervious.

Internal Outfall 101

Potentially contaminated storm water runoff from the combustion turbine area and the fuel storage tank area is routed through oil-water separator number one (identified as Outfall 101) prior to discharge to the retention pond. The total area drained is approximately two acres, all of which is impervious.

Internal Outfall 102

Potentially contaminated storm water runoff from the Fuel Oil Tank Unloading Station is routed through oil-water separator number two (identified as Outfall 102) which discharges to an open drainage ditch that flows directly to the storm water system and to the retention pond. The total area drained is less than 0.1 acre, all of which is impervious.

Turbine Wash Water

Washing of combustion turbine compressor surfaces is done off-line only. Off-line washing consists of injecting a solution of detergent and demineralized water into the turbines when they are not operating. Off-line washing is typically performed once per year and uses 2,500 gallons per turbine for a total of 12,500 gallons per year. Turbine wash water is collected and removed off-site for disposal.

Demineralized Water

Water withdrawn from Bowlers Mill Lake requires chemical treatment to remove iron and manganese and filtration to remove suspended solids prior to use by the facility. Filtered water that is to be injected into the combustion turbines is further treated by demineralization. Demineralization is conducted on site within portable demineralization trailers. Storage capacity of approximately 2 MG is provided for demineralized water. Once the filtering capacity of each unit has been maximized, the trailer is removed and the waste is discharged off site.

The existing VPDES permit authorizes the discharge of filter prime water and residual water from the demineralization unit to the storm water retention pond during storage tank refill operations. Discharge would be via Outfall 001. This authorization shall be carried forward with this reissuance.

The existing VPDES permit authorizes the discharge of water from the demineralized water storage tank. Discharge would be via Outfall 002. This authorization shall be carried forward with this reissuance.

Raw/Fire Water Storage Tank

The existing VPDES permit authorizes the discharge of drainage and overflow activities from the Raw/Fire Water Storage Tank. Approximately six million gallons of storage is provided for raw water from Bowlers Mill Lake for use in facility operations and fire control. Discharge would be via Outfall 001. This authorization shall be carried forward with this reissuance.

Vehicle Wash Water

The existing VPDES permit authorizes the discharge of vehicle wash water. The facility originally requested this authorization in June 2005 and by letter dated June 21, 2005, DEQ authorized vehicle washing. Vehicle washing activities are infrequent and would utilize consumer-level quantities of soaps/detergents. Discharge of vehicle wash water would be via either Outfall 001 or Outfall 002. This authorization shall be carried forward with this reissuance.

Pressure Washing Water

The existing VPDES permit authorizes the discharge of pressure washing water as well as the use of washing detergents. The primary focus of pressure washing activities is the outside of bulk storage tanks. The bulk storage tanks are on a gravel surface at a level grade which retards flows. Pressure washing activities may also occasionally include the outside of buildings located on site, but no equipment or combustion turbines will be pressure washed. Runoff from pressure washing activities would enter a storm water conveyance ditch with ultimate discharge via either Outfall 001 or Outfall 002. Discharge of pressure washing water is estimated to be less than 1,000 gallons per discharge. This authorization shall be carried forward with this reissuance.

Fire Hydrant Flushing

The existing VPDES permit authorizes the discharge of fire hydrant flushing waters. Per the National Fire Protection Association (NFPA), the facility is required to flush hydrants on an annual basis. Private contractors hired by the facility perform this work. Runoff from fire hydrant flushing activities would enter a storm water conveyance ditch with ultimate discharge via Outfall 001. This authorization shall be carried forward with this reissuance.

See Attachment 1 for the National Pollutant Discharge Elimination System (NPDES) Permit Rating Worksheet.

See Attachment 2 for a facility schematic/diagram.

TABLE 2 – Outfall Description

Outfall Number	Discharge Sources*	Treatment	Average Flow	Outfall Latitude and Longitude
001	Storm Water Internal Outfall 101 Internal Outfall 102	Retention Pond	33.5 MG (0.09 MGD)	38° 06′ 56″ N 78° 13′ 02″ W
101	Storm Water	Oil-Water Separator	600 gpm**	38° 06′ 57″ N 78° 12′ 55″ W
102	Storm Water	Oil-Water Separator	100 gpm**	38° 07′ 04″ N 78° 12′ 57″ W
002	Storm Water	None	Variable	38° 07′ 01″ N 78° 12′ 49″ W

*Discharge sources as provided within the facility's Form 2C application. See Section 10 above for potential non-storm water sources that may also be present in the discharge.

**Average flows are based on the respective oil-water separator's pump capacity in gallons per minute (gpm).

See Attachment 3 for (Boswells Tavern, DEQ #172C) topographic map.

11. Solids Treatment and Disposal Methods:

ODEC – Louisa Generation Facility is an existing industrial facility that does not treat domestic sewage and does not produce sewage sludge.

12. Monitoring Stations and Discharges in Vicinity of Discharge in Waterbody ID: VAN-F01R

TABLE 3	
8-DOV001.20	DEQ fish tissue monitoring station located on Lake Gordonsville approximately 2.5 rivermiles downstream of Outfall 001.
8-SAR089.35	DEQ ambient water quality station located on the South Anna River approximately 11.5 rivermiles downstream of Outfall 001.
VA0021105	Gordonsville Sewage Treatment Plant (UT to South Anna River)
VA0087033	Dominion – Gordonsville Power Station (South Anna River)
VA0088706	South Creek – Zion Crossroads (UT to Central Branch)
VA0090743	Zion Crossroads Wastewater Treatment Plant (Camp Creek Lake)
VA0092553 / VAR050848	Klockner Pentaplast of America (UT to South Anna River)
VAG406049	Annadale Land Trust (UT to South Anna River)
VAG406455	George Seymour Residence (UT to South Anna River)
VAG406474	East End Farm (UT to Hudson Creek)
VAG406484	Carol and Heather Haney Residence (UT to Bowles Creek)
VAG406496	Elisabeth Nolting Aiken Residence (UT to Fielding Creek)
VAG110133	Aggregate Industries MAR – Louisa (UT to Little River)
VAR050969	Gentry Logging Company -- Gordonsville Log Yard (UT to South Anna River)
VAR051812	Schneider National Carriers #064 (UT to Central Branch)

13. Material Storage:

TABLE 4 - Material Storage		
Materials Description	Volume Stored	Spill/Storm Water Prevention Measures
Sodium Hydroxide (caustic 25%)	150 gallons	Within water treatment building
Sodium Hypochlorite	300 gallons	Within water treatment building
Polymer (P-850)	55 gallons	Within water treatment building
Polymer (P-849L)	100 gallons	Within water treatment building
Number 2 Fuel Oil	2 million gallons	Above Ground Storage Tanks (within secondary containment)

14. Site Inspection:

Performed by Susan Mackert and Beth Biller on April 7, 2008. Because operations have not changed at the facility since the 2008 site visit, a site visit was not conducted with this reissuance.

15. Receiving Stream Water Quality and Water Quality Standards:

a) Ambient Water Quality Data

This facility discharges to two Unnamed Tributaries to Happy Creek. There are no DEQ water quality monitoring stations on Happy Creek. The nearest downstream DEQ monitoring station is 8-DOV001.20, which is a fish tissue monitoring station located on Lake Gordonsville. Station 8-DOV001.20 is located approximately 2.5 rivermiles downstream from Outfall 001. The nearest downstream DEQ monitoring station with ambient water quality data is station 8-SAR089.35, located on the South Anna River at the Route 613 bridge crossing. Station 8-SAR089.35 is located approximately 11.5 rivermiles downstream from Outfall 001. The following are monitoring summaries for both stations, as taken from the Draft 2012 Integrated Assessment*:

Station 8-DOV001.20 on Lake Gordonsville:

Class III, Section 3.

DEQ fish tissue monitoring station 8-DOV001.20, on Lake Gordonville, near dam.

The fish consumption use is categorized as impaired due to a Virginia Department of Health, Division of Health Hazards Control, mercury fish consumption advisory. Additionally, an exceedance of the fish tissue value (TV) of 300 parts per billion (ppb) for mercury (Hg) in fish tissue was recorded in one specie of fish samples collected in 2003 at monitoring station 8-DOV001.20 (largemouth bass). This mercury exceedance will remain noted.

The recreation and wildlife uses were not assessed.

Note: No data was submitted for the 2012 assessment period to assess the aquatic life use. Evaluation of the aquatic life use from the previous assessment will be carried forward, including overall category and assessment documentation. According to Rule 8 of the 2012 Assessment Guidance Manual (11-2007), "fully supporting waters can only be carried forward as fully supporting for two additional reporting cycles with no new data." 2012 is the first assessment the aquatic life use assessment is carried forward.

The aquatic life use information from the 2010 assessment is as follows:
The aquatic life is considered fully supporting.

Station 8-SAR089.35 on the South Anna River:

Class III, Section 3.

DEQ ambient monitoring station 8-SAR089.35, at Route 613. Citizen Monitoring Station 8SAR-F02-HGSI.

E. coli monitoring finds a bacterial impairment, resulting in an impaired classification for the recreation use. This impairment is nested within the downstream completed bacteria Total Maximum Daily Load (TMDL) for the South Anna River. The aquatic life use is considered fully supporting. The fish consumption use was not assessed.

Note: No data was submitted for the 2012 assessment period to assess the wildlife use. Evaluation of the wildlife use from the previous assessment will be carried forward, including overall category and assessment documentation. According to Rule 8 of the 2012 Assessment Guidance Manual (11-2007), "fully supporting waters can only be carried forward as fully supporting for two additional reporting cycles with no new data." 2012 is the first assessment the wildlife use assessment is carried forward.

The wildlife use information from the 2010 assessment is as follows:
The wildlife use is considered fully supporting.

*Virginia's Draft 2012 Integrated Report (IR) has been through the public comment period and reviewed by EPA. Please note that since the planning statement was completed in December 2012, the 2012 IR is currently being finalized and prepared for release. This differs from what appears in the planning statement.

b) 303(d) Listed Stream Segments and Total Maximum Daily Loads (TMDL)

TABLE 5 - 303(d) Impairment and TMDL Information (Downstream)

Impairment Information in the Draft 2012 Integrated Report*

Waterbody Name	Impaired Use	Cause	Distance From Outfall	TMDL completed	WLA**	Basis for WLA	TMDL Schedule
Lake Gordonsville	Fish Consumption	Mercury in Fish Tissue	1.3 miles	No	N/A	N/A	2018
South Anna River	Recreation	Fecal Coliform Bacteria	3.6 miles	Yes	N/A	N/A	2006

*Virginia's Draft 2012 Integrated Report (IR) has been through the public comment period and reviewed by EPA. Please note that since the planning statement was completed in December 2012, the 2012 IR is currently being finalized and prepared for release. This differs from what appears in the planning statement.

**WLA = Wasteload Allocation

The full planning statement is found in Attachment 4.

c) Receiving Stream Water Quality Criteria

Part IX of 9VAC25-260(360-550) designates classes and special standards applicable to defined Virginia river basins and sections. The receiving streams, unnamed tributaries to Happy Creek, are located within Section 3 of the York River Basin, and classified as Class III waters.

At all times, Class III waters must achieve a dissolved oxygen (D.O.) of 4.0 mg/L or greater, a daily average D.O. of 5.0 mg/L or greater, a temperature that does not exceed 32°C, and maintain a pH of 6.0-9.0 standard units (S.U.).

Attachment 5 details other water quality criteria applicable to the receiving stream.

Ammonia:
The fresh water, aquatic life Water Quality Criteria for Ammonia are dependent on the instream temperature and pH. The 90th percentile temperature and pH values are used because they best represent the critical design conditions of the receiving stream.

The 7Q10 and 1Q10 of the receiving streams are 0.0 MGD. In cases such as this, effluent pH and temperature data may be used to establish the ammonia water quality standard. The 90th percentile pH was derived for Outfall 001 only as Outfall 002 does not frequently discharge. DMR submissions for monitoring beginning in October 2008 through October 2011 were reviewed and the 90th percentile pH was determined to be 8.1 S.U. (see Attachment 6). Because the facility is not required to monitor effluent temperature at Outfall 001, a default value of 25°C was used. The ammonia water quality standards calculations are shown in Attachment 5.

Ammonia, as N, is not a parameter of concern due to the fact the discharge is industrial in nature. As such, there is no reasonable potential to exceed the ammonia criteria and limit derivation is not warranted.

Metals Criteria:
The Water Quality Criteria for some metals are dependent on the receiving stream's hardness (expressed as mg/L calcium carbonate). The 7Q10 of the receiving streams is zero, no ambient data is available, and no effluent hardness data is available for either Outfall 001 or Outfall 002. Metals criteria were only developed for Outfall 001 as Outfall 002 does not frequently discharge. Staff guidance suggests using a default hardness value of 50 mg/L $CaCO_3$ for streams east of the Blue Ridge. The hardness-dependent metals criteria in Attachment 5 are based on this default value.

d) Receiving Stream Special Standards

The State Water Control Board's Water Quality Standards, River Basin Section Tables (9VAC25-260-360, 370 and 380) designates the river basins, sections, classes, and special standards for surface waters of the Commonwealth of Virginia. The receiving streams, unnamed tributaries to Happy Creek, are located within Section 3 of the York River Basin. This section has not been designated with any special standards.

16. Antidegradation (9VAC25-260-30):

All state surface waters are provided one of three levels of antidegradation protection. For Tier 1 or existing use protection, existing uses of the water body and the water quality to protect these uses must be maintained. Tier 2 water bodies have water quality that is better than the water quality standards. Significant lowering of the water quality of Tier 2 waters is not allowed without an evaluation of the economic and social impacts. Tier 3 water bodies are exceptional waters and are so designated by regulatory amendment. The antidegradation policy prohibits new or expanded discharges into exceptional waters.

The receiving stream has been classified as Tier 1 based on the downstream impairments noted in Section 15.b.and the receiving stream having a 7Q10 and 1Q10 of zero. It is staff's best professional judgment that such streams are Tier 1. Permit limits proposed have been established by determining wasteload allocations which will result in attaining and/or maintaining all water quality criteria which apply to the receiving stream, including narrative criteria. These wasteload allocations will provide for the protection and maintenance of all existing uses.

17. Effluent Screening, Wasteload Allocation, and Effluent Limitation Development:

To determine water quality-based effluent limitations for a discharge, the suitability of data must first be determined. Data is suitable for analysis if one or more representative data points is equal to or above the quantification level ("QL") and the data represent the exact pollutant being evaluated.

Next, the appropriate Water Quality Standards (WQS) are determined for the pollutants in the effluent. Then, the Wasteload Allocations (WLA) are calculated. In this case since the critical flows 7Q10 and 1Q10 have been determined to be zero, the WLA's are equal to the WQS. The WLA values are then compared with available effluent data to determine the need for effluent limitations. Effluent limitations are needed if the 97th percentile of the daily effluent concentration values is greater than the acute wasteload allocation or if the 97th percentile of the four-day average effluent concentration values is greater than the chronic wasteload allocation. Effluent limitations are based on the most limiting WLA, the required sampling frequency, and statistical characteristics of the effluent data.

a) Effluent Screening:
Effluent data obtained from the permit application and Discharge Monitoring Report (DMR) forms for monitoring beginning in October 2008 through October 2011 has been reviewed and determined to be suitable for evaluation. The following pollutants require a wasteload allocation analysis: Copper, Mercury, Lead, and Zinc. See Section 17.c.1 of the Fact Sheet for additional discussion on these specific pollutants.

b) Mixing Zones and Wasteload Allocations (WLAs):
Wasteload allocations (WLAs) are calculated for those parameters in the effluent with the reasonable potential to cause an exceedance of water quality criteria. The basic calculation for establishing a WLA is the steady state complete mix equation:

$$WLA = \frac{C_o [Q_e + (f) (Q_s)] - [(C_s) (f) (Q_s)]}{Q_e}$$

Where:
- WLA = Wasteload allocation
- C_o = In-stream water quality criteria
- Q_e = Design flow
- Q_s = Critical receiving stream flow (1Q10 for acute aquatic life criteria; 7Q10 for chronic aquatic life criteria; 30Q10 for ammonia criteria; harmonic mean for carcinogen-human health criteria; and 30Q5 for non-carcinogen human health criteria)
- f = Decimal fraction of critical flow
- C_s = Mean background concentration of parameter in the receiving stream.

The water segments receiving the discharge via Outfall 001 and Outfall 002 are considered to have a 7Q10 and 1Q10 of 0.0 MGD. As such, there are no mixing zones and the WLA is equal to the C_o.

c) Effluent Limitations - Toxic Pollutants

9VAC25-31-220.D. requires limits be imposed where a discharge has a reasonable potential to cause or contribute to an in-stream excursion of water quality criteria. Those parameters with WLAs that are near effluent concentrations are evaluated for limits.

The VPDES Permit Regulation at 9VAC25-31-230.D requires that monthly and weekly average limitations be imposed for continuous discharges from Privately Owned Treatment Works (POTW) and monthly average and daily maximum limitations be imposed for all other continuous non-POTW discharges.

1. Outfall 001

Total Residual Chlorine (TRC):
TRC limitations are established to prevent acute and chronic impacts to aquatic organisms. The TRC limitation is only applicable if there is a discharge, defined as an overflow or drainage, from the demineralized water storage tank and/or from fire hydrant flushing activities.

In accordance with current DEQ guidance, staff used a default data point of 0.2 mg/L and the calculated WLAs to derive limits. The resulting water quality based derivation indicates a daily maximum limit of 0.016 mg/L is needed (Attachment 6). This limit is the same as that which is currently found within the facility's existing permit. As such, the daily maximum limit of 0.016 mg/L shall be carried forward with this reissuance. The monitoring frequency of once per discharge shall also be carried forward.

Copper:
An analysis of the data provided with this reissuance indicates no effluent limits are necessary (Attachment 6). While limits are not warranted with this reissuance, it is staff's best professional judgement that monitoring for dissolved copper be implemented as it is noted as being present in the discharge. A monitoring frequency of once per year (1/YR) is proposed.

Lead:
An analysis of the data provided with this reissuance indicates no effluent limits are necessary (Attachment 6). While limits are not warranted with this reissuance, it is staff's best professional judgement that monitoring for dissolved lead be implemented as it is noted as being present in the discharge. A monitoring frequency of once per year (1/YR) is proposed.

Mercury:
An analysis of the data provided with this reissuance indicates no effluent limits are necessary (Attachment 6). While limits are not warranted with this reissuance, it is staff's best professional judgement that monitoring for dissolved mercury be implemented as it is noted as being present in the discharge. A monitoring frequency of once per year (1/YR) is proposed.

Zinc:
An analysis of the data provided with this reissuance indicates no effluent limits are necessary (Attachment 6). While limits are not warranted with this reissuance, it is staff's best professional judgement that monitoring for dissolved zinc be implemented as it is noted as being present in the discharge. A monitoring frequency of once per year (1/YR) is proposed.

d) Effluent Limitations and Monitoring – Conventional and Non-Conventional Pollutants

1. Outfall 001

Total Petroleum Hydrocarbons (TPH):
The technology-based monthly average limit of 15 mg/L and daily maximum limit of 30 mg/L shall be carried forward with this reissuance. The limits are based on the ability of simple oil-water separator technology to recover free product from water. Wastewater discharged without a visible sheen is generally expected to meet this effluent limitation. The annual monitoring frequency (1/YR) shall also be carried forward.

Total Suspended Solids (TSS):
A daily maximum limit of 60 mg/L shall be implemented with this reissuance. The limit is included to ensure proper operation and maintenance of the storm water retention pond as the pond has the potential to receive non-storm water discharges as described in Section 10 of the Fact Sheet. The limit was derived from requirements at other industrial facilities providing sedimentation of storm water runoff. The annual monitoring frequency (1/YR) shall be carried forward.

pH:
The minimum limit of 6.0 S.U. and the maximum limit of 9.0 S.U. shall be carried forward with this reissuance. Effluent pH limitations are set at the water quality criteria. The annual monitoring frequency (1/YR) shall also be carried forward.

Total Hardness:
The Water Quality Criteria for some metals are dependent on the effluent hardness (expressed as mg/L calcium carbonate). Because staff has proposed monitoring for dissolved copper, dissolved lead, dissolved mercury, and dissolved zinc, it is staff's best professional judgement that hardness monitoring also be implemented with this reissuance. A monitoring frequency of once every year (1/YR) is proposed.

2. Outfall 002

Total Suspended Solids (TSS):
Monitoring for TSS, but without specific limitation, shall be carried forward with this reissuance based on DEQ Guidance Memo 96-001. Monitoring shall be conducted once per year contingent upon a discharge.

pH:
The minimum limit of 6.0 S.U. and the maximum limit of 9.0 S.U. shall be carried forward with this reissuance. Effluent pH limitations are set at the water quality criteria. Monitoring shall be conducted once per year contingent upon a discharge.

3. Internal Outfall 101

Total Petroleum Hydrocarbons (TPH):
The monthly average limit of 15 mg/L and daily maximum limit of 30 mg/L shall be carried forward with this reissuance. The limit is based on the ability of simple oil-water separator technology to recover free product from water. Wastewater discharged without a visible sheen is generally expected to meet this effluent limitation. The annual monitoring frequency (1/YR) shall be carried forward.

4. Internal Outfall 102

Total Petroleum Hydrocarbons (TPH):
The monthly average limit of 15 mg/L and daily maximum limit of 30 mg/L shall be carried forward with this reissuance. The limit is based on the ability of simple oil-water separator technology to recover free product from water. Wastewater discharged without a visible sheen is generally expected to meet this effluent limitation. The annual monitoring frequency (1/YR) shall be carried forward.

e) Effluent Limitations – Federal Effluent Guidelines.

Effluent guidelines are technology-based regulations that have been developed by the Environmental Protection Agency (EPA) for a specific category of discharger. The regulations established in 40 CFR Part 423, Steam Electric Power Generating Point Source, are based on the performance of control and treatment technologies. Effluent limitations have been established using Best Available Technology (BAT), Best Practicable Control Technology (BPT), and New Source Performance Standards (NSPS) guidelines for this type of industry.

The Louisa Generation Facility utilizes simple cycle combustion turbines that do not have a steam process. As such, the Federal Effluent Guidelines in 40 CFR Part 423 are not applicable.

f) Effluent Limitations and Monitoring Summary.

Effluent limitations are presented in the following tables. Limits were established for Flow, Total Suspended Solids, Total Residual Chlorine, and Total Petroleum Hydrocarbons. Monitoring has been established for Dissolved Copper, Dissolved Lead, Dissolved Mercury, Dissolved Zinc, and Total Hardness.

The limit for Total Suspended Solids is based on Best Professional Judgement.

Sample Type and Frequency are in accordance with the recommendations in the VPDES Permit Manual.

18. Antibacksliding:

All limits in this permit are at least as stringent as those previously established. Backsliding does not apply to this reissuance.

19a. Effluent Limitations/Monitoring Requirements: Outfall 001 (Storm Water Retention Pond)

Average flow: 0.09 MGD

Sources contributing to the discharge from Outfall 001 include: Storm Water, Raw and Fire Water Storage Tank, Fire Hydrant Flushing, Vehicle Wash Water, Pressure Washing Water, Internal Outfall 101, and Internal Outfall 102.

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	NA	NL	NA	NA	NL	1/YR	Estimate
pH	2	NA	NA	6.0 S.U.	9.0 S.U.	1/YR	Grab
Total Suspended Solids (TSS)	1	NL (mg/L)	60 mg/L	NA	NA	1/YR	Grab
Total Petroleum Hydrocarbons (TPH)*	1	15 mg/L	30 mg/L	NA	NA	1/YR	Grab
Total Residual Chlorine (TRC)**	2	NL (mg/L)	0.016 mg/L	NA	NA	1/Dis	Grab
Copper, Dissolved***	1	NL (µg/L)	NA	NA	NA	1/YR	Grab
Lead, Dissolved***	1	NL (µg/L)	NA	NA	NA	1/YR	Grab
Mercury, Dissolved***	1	NL (µg/L)	NA	NA	NA	1/YR	Grab
Zinc, Dissolved***	1	NL (µg/L)	NA	NA	NA	1/YR	Grab
Hardness, Total (as $CaCO_3$)***	1	NL (mg/L)	NA	NA	NA	1/YR	Grab

The basis for the limitations codes are:
1. Best Professional Judgement
2. Water Quality Standards

MGD = Million gallons per day.
NA = Not applicable.
NL = No limit; monitor and report.
S.U. = Standard units.

1/YR = Once every year.
1/Dis = Once per discharge.

1/YR = The annual monitoring period shall be January 1 - December 31. The DMR shall be submitted no later than the 10th day of the month followir the monitoring period (January 10).

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

Total Petroleum Hydrocarbons Requirements:

* Total Petroleum Hydrocarbons (TPH) is the sum of individual gasoline range organics and diesel range organics or TPH-GRO and TPH-DRO to be measured by EPA SW 846 Method 8015 for gasoline and diesel range organics, or by EPA SW 846 Methods 8260 Extended and 8270 Extended.

Total Residual Chlorine Requirements:

** Monitoring is only required if a discharge occurs. Discharge is defined as an overflow or drainage from the filtered water storage tank and/or fire hydrant flushing activities that reaches Outfall 001. The TRC sample shall be collected during the first hour of discharge and before the second hour begins. The reporting frequency shall be on an annual basis (1/YR). The annual monitoring period is defined above.

Dissolved Metals and Total Hardness Requirements

*** Samples for dissolved metals and hardness shall be collected concurrently.

19b. Effluent Limitations/Monitoring Requirements: Outfall 002

Average flow: Variable

Sources contributing to the discharge from Outfall 002 include: Storm Water, Demineralized Water Storage Tank, Vehicle Wash Water, and Pressure Washing Water.

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	NA	NL	NA	NA	NL	1/Dis	Estimate
pH	2	NA	NA	6.0 S.U.	9.0 S.U.	1/Dis	Grab
Total Suspended Solids (TSS)	1	NL (mg/L)	NL (mg/L)	NA	NA	1/Dis	Grab

The basis for the limitations codes are:

1. Best Professional Judgement
2. Water Quality Standards

MGD = Million gallons per day.
NA = Not applicable.
NL = No limit; monitor and report.
S.U. = Standard units.

1/Dis = Once per discharge.

1/Dis = Monitoring is only required if a discharge occurs. Discharge is defined as an overflow or drainage from the demineralized water storage tank that reaches Outfall 002. The Samples shall be collected within the first 15 minutes of discharge. The reporting frequency shall be on an annual basis (1/YR). The annual monitoring period shall be January 1 through December 31. The DMR shall be submitted no later than the 10th day of the month following the monitoring period.

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

19c. Effluent Limitations/Monitoring Requirements: Outfall 101 (Oil-Water Separator #1)

Average flow: 600 gpm (pump capacity)

Sources contributing to the discharge from Outfall 101 include: Storm water from the combustion turbine and fuel storage tank area.

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	NA	NL	NA	NA	NL	1/YR	Estimate
Total Petroleum Hydrocarbons (TPH)*	1	15 mg/L	30 mg/L	NA	NA	1/YR	Grab

The basis for the limitations codes are:

1. Best Professional Judgement

MGD = Million gallons per day.
NA = Not applicable.
NL = No limit; monitor and report.
1/YR = Once every year.

1/YR = The annual monitoring period shall be January 1 - December 31. The DMR shall be submitted no later than the 10th day of the month following the monitoring period (January 10).

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

Total Petroleum Hydrocarbons Requirements:

* Total Petroleum Hydrocarbons (TPH) is the sum of individual gasoline range organics and diesel range organics or TPH-GRO and TPH-DRO to be measured by EPA SW 846 Method 8015 for gasoline and diesel range organics, or by EPA SW 846 Methods 8260 Extended and 8270 Extended.

19d. Effluent Limitations/Monitoring Requirements: Outfall 102 (Oil-Water Separator #2)

Average flow: Variable

Sources contributing to the discharge from Outfall 102 include: Storm water from the fuel oil truck unloading area.

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	NA	NL	NA	NA	NL	1/YR	Estimate
Total Petroleum Hydrocarbons (TPH)*	1	15 mg/L	30 mg/L	NA	NA	1/YR	Grab

The basis for the limitations codes are:

1. Best Professional Judgement

MGD = Million gallons per day.
NA = Not applicable.
NL = No limit; monitor and report.
1/YR = Once every year.

1/YR = The annual monitoring period shall be January 1 - December 31. The DMR shall be submitted no later than the 10th day of the month following the monitoring period (January 10).

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

Total Petroleum Hydrocarbons Requirements:

* Total Petroleum Hydrocarbons (TPH) is the sum of individual gasoline range organics and diesel range organics or TPH-GRO and TPH-DRO to be measured by EPA SW 846 Method 8015 for gasoline and diesel range organics, or by EPA SW 846 Methods 8260 Extended and 8270 Extended.

20. Other Permit Requirements:

a) Part I.B. of the permit contains quantification levels and compliance reporting instructions. 9VAC25-31-190.L.4.c. requires an arithmetic mean for measurement averaging and 9VAC25-31-220.D. requires limits be imposed where a discharge has a reasonable potential to cause or contribute to an in-stream excursion of water quality criteria. Specific analytical methodologies for toxics are listed in this permit section as well as quantification levels (QLs) necessary to demonstrate compliance with applicable permit limitations or for use in future evaluations to determine if the pollutant has reasonable potential to cause or contribute to a violation. Required averaging methodologies are also specified.

21. Other Special Conditions:

a) O&M Manual Requirement. Required by Code of Virginia §62.1-44.19; VPDES Permit Regulation, 9VAC25-31-190.E. The permittee shall maintain a current Operations and Maintenance (O&M) Manual. The permittee shall operate the treatment works in accordance with the O&M Manual and shall make the O&M Manual available to Department personnel for review upon request. Any changes in the practices and procedures followed by the permittee shall be documented in the O&M Manual within 90 days of the effective date of the changes. Non-compliance with the O&M Manual shall be deemed a violation of the permit.

b) Notification Levels. The permittee shall notify the Department as soon as they know or have reason to believe:

a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:

(1) One hundred micrograms per liter;

(2) Two hundred micrograms per liter for acrolein and acrylonitrile; five hundred micrograms per liter for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter for antimony;

(3) Five times the maximum concentration value reported for that pollutant in the permit application; or

(4) The level established by the Board.

b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:

(1) Five hundred micrograms per liter;

(2) One milligram per liter for antimony;

(3) Ten times the maximum concentration value reported for that pollutant in the permit application; or

(4) The level established by the Board.

c) Materials Handling/Storage. 9VAC25-31-50 A prohibits the discharge of any wastes into State waters unless authorized by permit. Code of Virginia §62.1-44.16 and §62.1-44.17 authorize the Board to regulate the discharge of industrial waste or other waste.

d) Water Quality Criteria Reopener. The VPDES Permit Regulation at 9VAC25-31-220 D. requires establishment of effluent limitations to ensure attainment/maintenance of receiving stream water quality criteria. Should data collected and submitted for Attachment A of the permit, indicate the need for limits to ensure protection of water quality criteria, the permit may be modified or alternately revoked and reissued to impose such water quality-based limitations.

e) Water Quality Criteria Monitoring. State Water Control Law §62.1-44.21 authorizes the Board to request information needed to determine the discharge's impact on State waters. States are required to review data on discharges to identify actual or potential toxicity problems, or the attainment of water quality goals, according to 40 CFR Part 131, Water Quality Standards, subpart 131.11. To ensure that water quality criteria are maintained, the permittee is required to analyze the facility's effluent for the substances noted in Attachment A of this VPDES permit.

f) No Discharge of Detergents, Surfactants, or Solvents to the Oil/Water Separators. This special condition is necessary to ensure that the oil/water separators' performance is not impacted by compounds designed to emulsify oil. Detergents, surfactants, and some other solvents will prohibit oil recovery by physical means.

g) Deionized Water Trailer Unit Discharge. The discharge of filter prime water and residual water from the unit into the storm water retention pond during storage tank refill operations is authorized under this permit. Final discharge to Outfall 001 is authorized. There shall be no discharge of any filter backwash water.

h) Vehicle Wash Water Discharge. The discharge of vehicle wash water from Outfall 001 and Outfall 002 is authorized under this permit. The permittee shall use only consumer available soaps and/or detergents. The permittee shall use the products in accordance with manufacturer instructions and/or recommendations. Soaps containing phosphates are prohibited in Virginia. Should the use of soaps and/or detergents significantly alter the characteristics of the effluent, or if their usage becomes persistent or continuous, the permit may be modified or, alternatively, revoked and reissued to include appropriate limitations or conditions. There shall be no discharge of floating solids or visible foam in other than trace amounts.

i) Pressure Washing Discharge. The discharge of pressure washing water from Outfall 001 and Outfall 002 is authorized under this permit. The permittee shall provide the Department of Environmental Quality – Northern Regional Office (DEQ-NRO) with a description of the pressure washing detergents to be used, the Material Safety Data Sheet (MSDS) and any available aquatic toxicity information thirty (30) days prior to use. The use of pressure washing detergents prior to approval by DEQ is prohibited under this permit. Prior approval shall be obtained from DEQ before any changes are made to the pressure washing detergents being used. Should the use of pressure washing detergents significantly alter the characteristics of the effluent, or if their usage becomes persistent or continuous, the permit may be modified or, alternatively, revoked and reissued to include appropriate limitations or conditions. There shall be no discharge of floating solids or visible foam in other than trace amounts.

j) Fire Hydrant Flushing Discharge. The discharge of fire hydrant flushing water from Outfall 001 is authorized under this permit. There shall be no discharge of floating solids or visible from in other than trace amounts.

k) Raw/Fire Water Storage Tank Discharge. The discharge of drainage and overflow activities from the Raw/Fire Water Storage Tank from Outfall 001 is authorized under this permit. There shall be no discharge of floating solids or visible from in other than trace amounts.

l) TMDL Reopener: This special condition is to allow the permit to reopened if necessary to bring it in compliance with any applicable TMDL that may be developed and approved for the receiving stream.

Permit Section Part II. Part II of the permit contains standard conditions that appear in all VPDES Permits. In general, these standard conditions address the responsibilities of the permittee, reporting requirements, testing procedures and records retention.

22. Changes to the Permit from the Previously Issued Permit:

a) Special Conditions:
1. The O&M special condition has been revised to be consistent with current agency practice.
2. A Fire Hydrant Flushing Discharge special condition has been added to the permit as it was omitted during the previous reissuance.
3. A Raw/Fire Water Storage Tank Discharge special condition has been added to the permit as it was omitted during the previous reissuance.
4. A No Discharge of Detergents, Surfactants, or Solvents to the Oil/Water Separators special condition has been added to the permit due to the use of oil-water separators at Internal Outfall 101 and Internal Outfall 102.
5.

b) Monitoring and Effluent Limitations:
1. A daily maximum TSS limit of 60 mg/L was added to Outfall 001 to reflect current agency practice and requirements at other similar industrial facilities that utilize storm water retention ponds.
2. Monitoring for dissolved copper, dissolved lead, dissolved mercury, and dissolved zinc, without effluent limitation, has been added with this reissuance based on data submitted with the reapplication package.

4. The TPH footnote now specifies that both TPH-GRO and TPH-DRO are to be measured to calculate TPH.

c) Other:

1. The EPA checklist, found as an attachment to the Fact Sheet, is no longer required.
2. Part II.A (Monitoring) of the permit has been updated to incorporate the Virginia Environmental Laboratory Accreditation Program (VELAP) requirements for laboratory analysis.

23. Variances/Alternate Limits or Conditions: Not Applicable

24. Public Notice Information:

First Public Notice Date: July 11, 2013 Second Public Notice Date: July 18, 2013

Public Notice Information is required by 9VAC25-31-280 B. All pertinent information is on file and may be inspected, and copied by contacting the: DEQ Northern Regional Office, 13901 Crown Court, Woodbridge, VA 22193, Telephone No. (703) 583-3853, susan.mackert@deq.virginia.gov. See Attachment 7 for a copy of the public notice document.

Persons may comment in writing or by email to the DEQ on the proposed permit action, and may request a public hearing, during the comment period. Comments shall include the name, address, and telephone number of the writer and of all persons represented by the commenter/requester, and shall contain a complete, concise statement of the factual basis for comments. Only those comments received within this period will be considered. The DEQ may decide to hold a public hearing, including another comment period, if public response is significant and there are substantial, disputed issues relevant to the permit. Requests for public hearings shall state 1) the reason why a hearing is requested; 2) a brief, informal statement regarding the nature and extent of the interest of the requester or of those represented by the requester, including how and to what extent such interest would be directly and adversely affected by the permit; and 3) specific references, where possible, to terms and conditions of the permit with suggested revisions. Following the comment period, the Board will make a determination regarding the proposed permit action. This determination will become effective, unless the DEQ grants a public hearing. Due notice of any public hearing will be given. The public may request an electronic copy of the draft permit and fact sheet or review the draft permit and application at the DEQ Northern Regional Office by appointment.

25. Additional Comments:

Previous Board Action(s): None

Staff Comments: None

Public Comment: No comments were received during the public notice.

Fact Sheet Attachments – Table of Contents

Old Dominion Electric Cooperative – Louisa Generation Facility
VA0091332

2013 Reissuance

NPDES PERMIT RATING WORK SHEET

[X] Regular Addition
[ ] Discretionary Addition
[ ] Score change, but no status Change
[ ] Deletion

VPDES NO. : VA0091332

Facility Name: ODEC – Louisa Generation Facility
City / County: Gordonsville / Louisa County
Receiving Water: UTs to Happy Creek
Reach Number:

Is this facility a steam electric power plant (sic =4911) with one or more of the following characteristics?

1. Power output 500 MW or greater (not using a cooling pond/lake)
2. A nuclear power Plant
3. Cooling water discharge greater than 25% of the receiving stream's 7Q10 flow rater

[ ] Yes; score is 600 (stop here) [X] NO; (continue)

Is this permit for a municipal separate storm sewer serving a population greater than 100,000?

[ ] YES; score is 700 (stop here)
[X] NO; (continue)

FACTOR 1: Toxic Pollutant Potential

PCS SIC Code: _____ Primary Sic Code: 4911 Other Sic Codes: _____ _____ _____

Industrial Subcategory Code: 000 (Code 000 if no subcategory)

Determine the Toxicity potential from Appendix A. Be sure to use the TOTAL toxicity potential column and check one)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
[X] No process waste streams	0	0	[ ] 3.	3	15	[ ] 7.	7	35
[ ] 1.	1	5	[ ] 4.	4	20	[ ] 8.	8	40
[ ] 2.	2	10	[ ] 5.	5	25	[ ] 9.	9	45
			[ ] 6.	6	30	[ ] 10.	10	50

Code Number Checked: 0

Total Points Factor 1: 0

FACTOR 2: Flow/Stream Flow Volume (Complete either Section A or Section B; check only one)

Section A – Wastewater Flow Only considered

Wastewater Type (see Instructions)			Code	Points
Type I:	Flow < 5 MGD	[ ]	11	0
	Flow 5 to 10 MGD	[ ]	12	10
	Flow > 10 to 50 MGD	[ ]	13	20
	Flow > 50 MGD	[ ]	14	30
Type II:	Flow < 1 MGD	[ ]	21	10
	Flow 1 to 5 MGD	[ ]	22	20
	Flow > 5 to 10 MGD	[ ]	23	30
	Flow > 10 MGD	[ ]	24	50
Type III:	Flow < 1 MGD	[ ]	31	0
	Flow 1 to 5 MGD	[ ]	32	10
	Flow > 5 to 10 MGD	[ ]	33	20
	Flow > 10 MGD	[ ]	34	30

Section B – Wastewater and Stream Flow Considered

Wastewater Type (see Instructions)	Percent of Instream Wastewater Concentration at Receiving Stream Low Flow		Code	Points
Type I/III:	< 10 %	[ ]	41	0
	10 % to < 50 %	[ ]	42	10
	> 50%	[ ]	43	20
Type II:	< 10 %	[ ]	51	0
	10 % to < 50 %	[ ]	52	20
	> 50 %	[X]	53	30

Code Checked from Section A or B: 53

Total Points Factor 2: 30

NPDES PERMIT RATING WORK SHEET

FACTOR 3: Conventional Pollutants

(only when limited by the permit)

A. Oxygen Demanding Pollutants: (check one) ☐ BOD ☐ COD ☐ Other: _____

Permit Limits: (check one)	Code	Points
☐ < 100 lbs/day	1	0
☐ 100 to 1000 lbs/day	2	5
☐ > 1000 to 3000 lbs/day	3	15
☐ > 3000 lbs/day	4	20

Code Number Checked: NA

Points Scored: 0

B. Total Suspended Solids (TSS)

Permit Limits: (check one)	Code	Points
☒ < 100 lbs/day	1	0
☐ 100 to 1000 lbs/day	2	5
☐ > 1000 to 5000 lbs/day	3	15
☐ > 5000 lbs/day	4	20

Code Number Checked: 1

Points Scored: 0

C. Nitrogen Pollutants: (check one) ☐ Ammonia ☐ Other: _____

Permit Limits: (check one) *Nitrogen Equivalent*	Code	Points
☐ < 300 lbs/day	1	0
☐ 300 to 1000 lbs/day	2	5
☐ > 1000 to 3000 lbs/day	3	15
☐ > 3000 lbs/day	4	20

Code Number Checked: NA

Points Scored: 0

Total Points Factor 3: 0

FACTOR 4: Public Health Impact

Is there a public drinking water supply located within 50 miles downstream of the effluent discharge (this include any body of water to which the receiving water is a tributary)? A public drinking water supply may include infiltration galleries, or other methods of conveyance that ultimately get water from the above reference supply.

☐ YES; (If yes, check toxicity potential number below)

☒ NO; (If no, go to Factor 5)

Determine the *Human Health* potential from Appendix A. Use the same SIC doe and subcategory reference as in Factor 1. (Be sure to use the *Human Health* toxicity group column – check one below)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
☐ No process waste streams	0	0	☐ 3.	3	0	☐ 7.	7	15
☐ 1.	1	0	☐ 4.	4	0	☐ 8.	8	20
☐ 2.	2	0	☐ 5.	5	5	☐ 9.	9	25
			☐ 6.	6	10	☐ 10.	10	30

Code Number Checked: NA

Total Points Factor 4: 0

NPDES PERMIT RATING WORK SHEET

FACTOR 5: Water Quality Factors

A. *Is (or will) one or more of the effluent discharge limits based on water quality factors of the receiving stream (rather than technology-base federal effluent guidelines, or technology-base state effluent guidelines), or has a wasteload allocation been to the discharge*

		Code	Points
[X]	YES	1	10
[ ]	NO	2	0

B. *Is the receiving water in compliance with applicable water quality standards for pollutants that are water quality limited in the permit?*

		Code	Points
[X]	YES	1	0
[ ]	NO	2	5

C. *Does the effluent discharged from this facility exhibit the reasonable potential to violate water quality standards due to whole effluent toxicity?*

		Code	Points
[ ]	YES	1	10
[X]	NO	2	0

Code Number Checked: A 1 B 1 C 2

Points Factor 5: A 10 + B 0 + C 0 = **10**

FACTOR 6: Proximity to Near Coastal Waters

A. Base Score: Enter flow code here (from factor 2) 53

Check appropriate facility HPRI code (from PCS):

	HPRI#	Code	HPRI Score
[ ]	1	1	20
[ ]	2	2	0
[ ]	3	3	30
[X]	4	4	0
[ ]	5	5	20

Enter the multiplication factor that corresponds to the flow code: _____

Flow Code	Multiplication Factor
11, 31, or 41	0.00
12, 32, or 42	0.05
13, 33, or 43	0.10
14 or 34	0.15
21 or 51	0.10
22 or 52	0.30
23 or 53	0.60
24	1.00

HPRI code checked : 4

Base Score (HPRI Score): 0 X (Multiplication Factor) 0.6 = 0

B. Additional Points – NEP Program

For a facility that has an HPRI code of 3, does the facility discharge to one of the estuaries enrolled in the National Estuary Protection (NEP) program (see instructions) or the Chesapeake Bay?

	Code	Points	
[ ]	1	10	NA
[ ]	2	0	

C. Additional Points – Great Lakes Area of Concern

For a facility that has an HPRI code of 5, does the facility discharge any of the pollutants of concern into one of the Great Lakes' 31 areas of concern (see instructions)?

	Code	Points	
[ ]	1	10	NA
[ ]	2	0	

Code Number Checked: A 4 B NA C NA

Points Factor 6: A 0 + B 0 + C 0 = **0**

NPDES PERMIT RATING WORK SHEET

SCORE SUMMARY

Factor	Description	Total Points
1	Toxic Pollutant Potential	0
2	Flows / Streamflow Volume	30
3	Conventional Pollutants	0
4	Public Health Impacts	0
5	Water Quality Factors	10
6	Proximity to Near Coastal Waters	0
	TOTAL (Factors 1 through 6)	**40**

S1. Is the total score equal to or grater than 80 ☐ YES; (Facility is a Major) ☒ NO

S2. If the answer to the above questions is no, would you like this facility to be discretionary major?

☒ NO

☐ YES; (Add 500 points to the above score and provide reason below:

Reason: _____

NEW SCORE : 40

OLD SCORE : 40

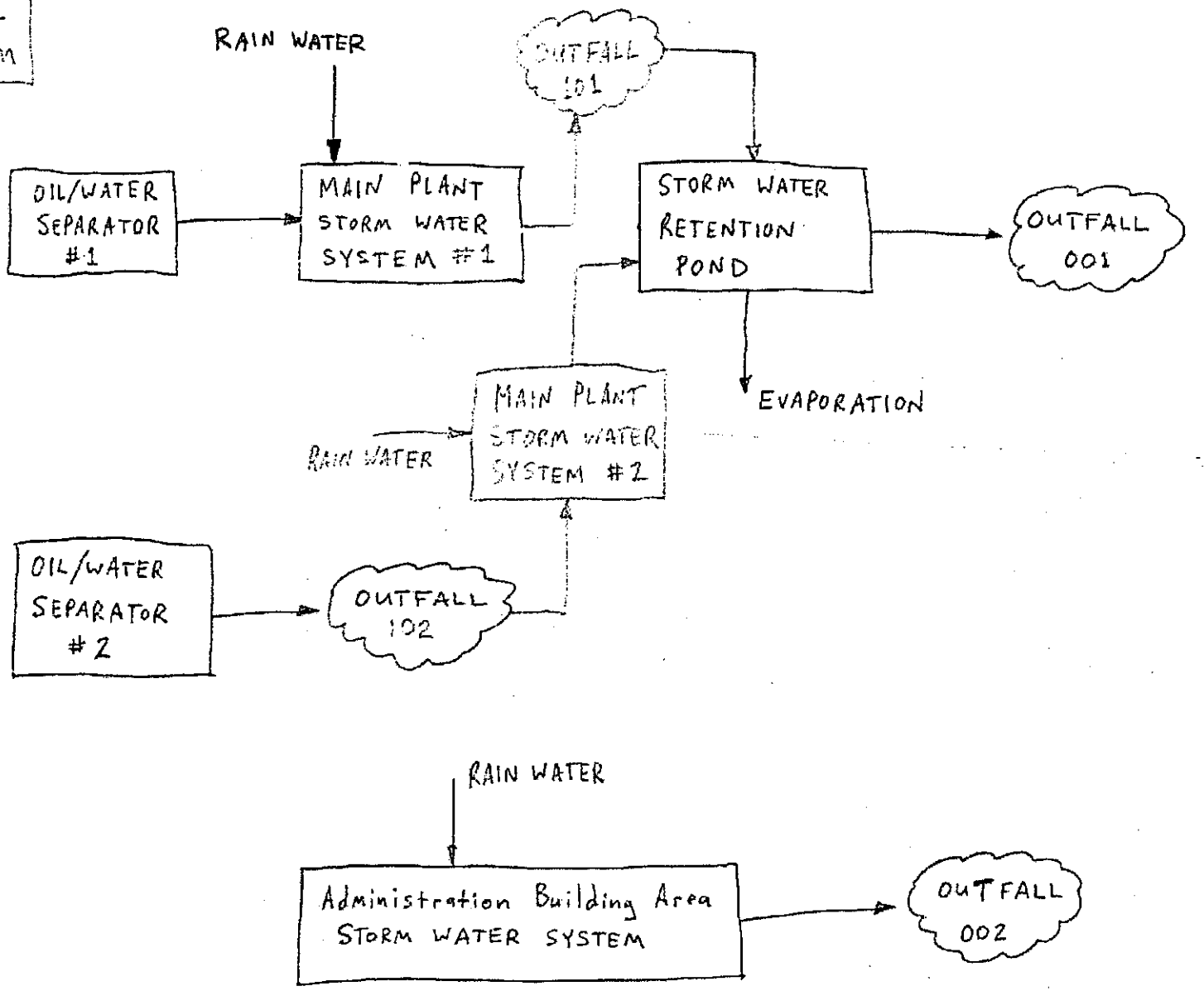
Permit Reviewer's Name : Susan Mackert

Phone Number: (703) 583-3853

Date: June 6, 2013

OUTFALL DIAGRAM

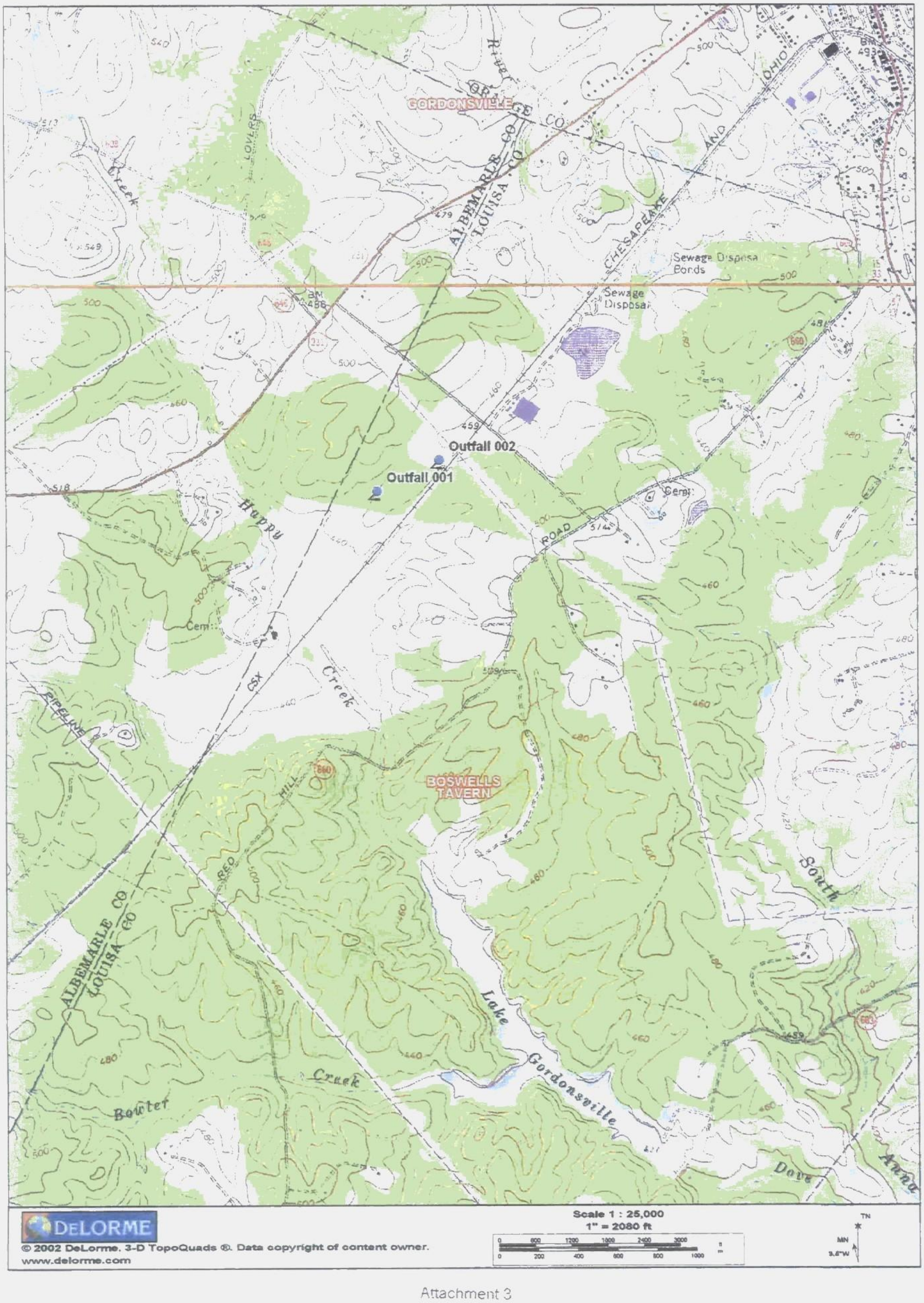
REV. 0 12-8-02
REV. 1 3-5-03
REV 2 12-10-12



NOTES: O/W SEP # 1 will receive rain water from the locations indicated on drawing N-0009 sheet 1 + 2.

O/W SEP # 2 will recive rain water from the fuel oil unloading area. See drawing N-0009 Sheet 1 + 2.

Attachment 2
Page 1 of 1


GORDONSVILLE
ALBEMARLE CO
LOUISA CO
CHESAPEAKE AND OHIO
Sewage Disposa Ponds
Sewage Disposal
Outfall 002
Outfall 001
Happy Creek
ROAD
CSX
PIPELINE
RED HILL
BOSWELLS TAVERN
Lake Gordonsville
Bowler Creek
South Anna
Cem.
DELORME
© 2002 DeLorme. 3-D TopoQuads ®. Data copyright of content owner.
www.delorme.com
Scale 1 : 25,000
1" = 2080 ft

Mackert, Susan (DEQ)

From: Conaway, Katie (DEQ)
Sent: Thursday, December 27, 2012 12:04 PM
To: Mackert, Susan (DEQ)
Cc: Carlson, Jennifer (DEQ); Thomas, Bryant (DEQ)
Subject: Permit Planning Statement for Louisa Generation - ODEC
Attachments: Permit Planning Statement for VA0091332 Louisa Regional - 2012.docx

Hey Susan,

Here is the planning statement for ODEC- Louisa Generation Facility. I noticed that the previous permit for this facility included multiple outfalls. I just did this planning statement for Outfall 001. If that needs to be changed please let me know.

Thanks!

Katie

Katie Conaway
Virginia Department of Environmental Quality
13901 Crown Court
Woodbridge, VA 22193
703-583-3804
Katie.Conaway@deq.virginia.gov
www.deq.virginia.gov

From: Carlson, Jennifer (DEQ)
Sent: Wednesday, December 19, 2012 3:36 PM
To: Conaway, Katie (DEQ)
Subject: FW: Planning Statement Request

FYI

From: Mackert, Susan (DEQ)
Sent: Wednesday, December 19, 2012 3:11 PM
To: Carlson, Jennifer (DEQ)
Subject: Planning Statement Request

Hi Jen,

Please find attached a planning statement request for ODEC – Louisa Generation. Please let me know if you have any questions.

Thanks,
Susan

To:	Susan Mackert
From:	Katie Conaway
Date:	December 27, 2012
Subject:	Planning Statement for ODEC – Louisa Generation
Permit Number:	VA0091332

Information for Outfall 001:
Discharge Type: Industrial process water and storm water
Discharge Flow: 0.26 MGD (intermittent)
Receiving Stream: UT to Happy Creek
Latitude / Longitude: 38° 06' 56"/ -78° 13' 02"
Rivermile: 0.27
Streamcode: 8-XHT
Waterbody: VAN-F01R
Water Quality Standards: Class III, Section 3
Drainage Area: Approximately 0.03 mi^2

1. Please provide water quality monitoring information for the receiving stream segment. If there is not monitoring information for the receiving stream segment, please provide information on the nearest downstream monitoring station, including how far downstream the monitoring station is from the outfall.

   This facility discharges to an Unnamed Tributary to Happy Creek. There are no DEQ water quality monitoring stations on Happy Creek. The nearest downstream DEQ monitoring station is 8-DOV001.20, which is a fish tissue monitoring station located on Lake Gordonsville. Station 8-DOV001.20 is located approximately 2.5 rivermiles downstream from Outfall 001. The nearest downstream DEQ monitoring station with ambient water quality data is station 8-SAR089.35, located on the South Anna River at the Route 613 bridge crossing. Station 8-SAR089.35 is located approximately 11.5 rivermiles downstream from Outfall 001. The following are monitoring summaries for both stations, as taken from the Draft 2012 Integrated Assessment*:

   Station 8-DOV001.20 on Lake Gordonsville:

   Class III, Section 3.

   DEQ fish tissue monitoring station 8-DOV001.20, on Lake Gordonville, near dam.

   The fish consumption use is categorized as impaired due to a Virginia Department of Health, Division of Health Hazards Control, mercury fish consumption advisory. Additionally, an exceedance of the fish tissue value (TV) of 300 parts per billion (ppb) for mercury (Hg) in fish tissue was recorded in one specie of fish samples collected in 2003 at monitoring station 8-DOV001.20 (largemouth bass). This mercury exceedance will remain noted.

   The recreation and wildlife uses were not assessed.

Note: No data was submitted for the 2012 assessment period to assess the aquatic life use. Evaluation of the aquatic life use from the previous assessment will be carried forward, including overall category and assessment documentation. According to Rule 8 of the 2012 Assessment Guidance Manual (11-2007), "fully supporting waters can only be carried forward as fully supporting for two additional reporting cycles with no new data." 2012 is the first assessment the aquatic life use assessment is carried forward.

The aquatic life use information from the 2010 assessment is as follows:
The aquatic life is considered fully supporting.

Station 8-SAR089.35 on the South Anna River:

Class III, Section 3.

DEQ ambient monitoring station 8-SAR089.35, at Route 613. Citizen Monitoring Station 8SAR-F02-HGSI.

E. coli monitoring finds a bacterial impairment, resulting in an impaired classification for the recreation use. This impairment is nested within the downstream completed bacteria TMDL for the South Anna River. The aquatic life use is considered fully supporting. The fish consumption use was not assessed.

Note: No data was submitted for the 2012 assessment period to assess the wildlife use. Evaluation of the wildlife use from the previous assessment will be carried forward, including overall category and assessment documentation. According to Rule 8 of the 2012 Assessment Guidance Manual (11-2007), "fully supporting waters can only be carried forward as fully supporting for two additional reporting cycles with no new data." 2012 is the first assessment the wildlife use assessment is carried forward.

The wildlife use information from the 2010 assessment is as follows:
The wildlife use is considered fully supporting.

**** Virginia's Draft 2012 Integrated Report (IR) has been through the public comment period and reviewed by EPA. The 2012 IR is currently awaiting final approval.***

2. Does this facility discharge to a stream segment on the 303(d) list? If yes, please fill out Table A.

No.

3. Are there any downstream 303(d) listed impairments that are relevant to this discharge? If yes, please fill out Table B.

Table B. Information on Downstream 303(d) Impairments and TMDLs

Waterbody Name	Impaired Use	Cause	Distance From Outfall	TMDL completed	WLA	Basis for WLA	TMDL Schedule
Impairment Information in the DRAFT 2012 Integrated Report*							
Lake Gordonsville	Fish Consumption	Mercury in Fish Tissue	1.3 miles	No	N/A	N/A	2018
South Anna River	Recreation	Fecal Coliform Bacteria	3.6 miles	Yes	N/A	N/A	2006

** Virginia's Draft 2012 Integrated Report (IR) has been through the public comment period and reviewed by EPA. The 2012 IR is currently awaiting final approval.*

4. Is there monitoring or other conditions that Planning/Assessment needs in the permit?

   There is a completed downstream TMDL for the aquatic life use impairment for the Chesapeake Bay. However, the Bay TMDL and the WLAs contained within the TMDL are not addressed in this planning statement.

5. Fact Sheet Requirements – Please provide information regarding any drinking water intakes located within a 5 mile radius of the discharge point.

   There are no public water supply intakes within 5 miles of this facility.

FRESHWATER
WATER QUALITY CRITERIA / WASTELOAD ALLOCATION ANALYSIS

Facility Name: ODEC - Louisa Generation Permit No.: VA0091332

Receiving Stream: UTs to Happy Creek Version: OWP Guidance Memo 00-2011 (8/24/00)

Stream Information

Mean Hardness (as CaCO3) =		mg/L
90% Temperature (Annual) =		deg C
90% Temperature (Wet season) =		deg C
90% Maximum pH =		SU
10% Maximum pH =		SU
Tier Designation (1 or 2) =	1	
Public Water Supply (PWS) Y/N? =	n	
Trout Present Y/N? =	n	
Early Life Stages Present Y/N? =	y	

Stream Flows

1Q10 (Annual) =	0	MGD
7Q10 (Annual) =	0	MGD
30Q10 (Annual) =	0	MGD
1Q10 (Wet season) =	0	MGD
30Q10 (Wet season)	0	MGD
30Q5 =	0	MGD
Harmonic Mean =	0	MGD

Mixing Information

Annual - 1Q10 Mix =	100 %
- 7Q10 Mix =	100 %
- 30Q10 Mix =	100 %
Wet Season - 1Q10 Mix =	100 %
- 30Q10 Mix =	100 %

Effluent Information

Mean Hardness (as CaCO3) =	50	mg/L
90% Temp (Annual) =	25	deg C
90% Temp (Wet season) =		deg C
90% Maximum pH =	8.1	SU
10% Maximum pH =		SU
Discharge Flow =	0.09	MGD

Parameter	Background	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
(ug/l unless noted)	Conc.	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Acenapthene	0	--	--	na	9.9E+02	--	--	na	9.9E+02	--	--	--	--	--	--	--	--	--	--	na	9.9E+02
Acrolein	0	--	--	na	9.3E+00	--	--	na	9.3E+00	--	--	--	--	--	--	--	--	--	--	na	9.3E+00
Acrylonitrile [C]	0	--	--	na	2.5E+00	--	--	na	2.5E+00	--	--	--	--	--	--	--	--	--	--	na	2.5E+00
Aldrin [C]	0	3.0E+00	--	na	5.0E-04	3.0E+00	--	na	5.0E-04	--	--	--	--	--	--	--	--	3.0E+00	--	na	5.0E-04
Ammonia-N (mg/l) (Yearly)	0	6.95E+00	1.07E+00	na	--	6.95E+00	1.07E+00	na	--	--	--	--	--	--	--	--	--	6.95E+00	1.07E+00	na	--
Ammonia-N (mg/l) (High Flow)	0	6.95E+00	2.10E+00	na	--	6.95E+00	2.10E+00	na	--	--	--	--	--	--	--	--	--	6.95E+00	2.10E+00	na	--
Anthracene	0	--	--	na	4.0E+04	--	--	na	4.0E+04	--	--	--	--	--	--	--	--	--	--	na	4.0E+04
Antimony	0	--	--	na	6.4E+02	--	--	na	6.4E+02	--	--	--	--	--	--	--	--	--	--	na	6.4E+02
Arsenic	0	3.4E+02	1.5E+02	na	--	3.4E+02	1.5E+02	na	--	--	--	--	--	--	--	--	--	3.4E+02	1.5E+02	na	--
Barium	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Benzene [C]	0	--	--	na	5.1E+02	--	--	na	5.1E+02	--	--	--	--	--	--	--	--	--	--	na	5.1E+02
Benzidine [C]	0	--	--	na	2.0E-03	--	--	na	2.0E-03	--	--	--	--	--	--	--	--	--	--	na	2.0E-03
Benzo (a) anthracene [C]	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
Benzo (b) fluoranthene [C]	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
Benzo (k) fluoranthene [C]	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
Benzo (a) pyrene [C]	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
Bis2-Chloroethyl Ether [C]	0	--	--	na	5.3E+00	--	--	na	5.3E+00	--	--	--	--	--	--	--	--	--	--	na	5.3E+00
Bis2-Chloroisopropyl Ether	0	--	--	na	6.5E+04	--	--	na	6.5E+04	--	--	--	--	--	--	--	--	--	--	na	6.5E+04
Bis 2-Ethylhexyl Phthalate [C]	0	--	--	na	2.2E+01	--	--	na	2.2E+01	--	--	--	--	--	--	--	--	--	--	na	2.2E+01
Bromoform [C]	0	--	--	na	1.4E+03	--	--	na	1.4E+03	--	--	--	--	--	--	--	--	--	--	na	1.4E+03
Butylbenzylphthalate	0	--	--	na	1.9E+03	--	--	na	1.9E+03	--	--	--	--	--	--	--	--	--	--	na	1.9E+03
Cadmium	0	1.8E+00	6.6E-01	na	--	1.8E+00	6.6E-01	na	--	--	--	--	--	--	--	--	--	1.8E+00	6.6E-01	na	--
Carbon Tetrachloride [C]	0	--	--	na	1.6E+01	--	--	na	1.6E+01	--	--	--	--	--	--	--	--	--	--	na	1.6E+01
Chlordane [C]	0	2.4E+00	4.3E-03	na	8.1E-03	2.4E+00	4.3E-03	na	8.1E-03	--	--	--	--	--	--	--	--	2.4E+00	4.3E-03	na	8.1E-03
Chloride	0	8.6E+05	2.3E+05	na	--	8.6E+05	2.3E+05	na	--	--	--	--	--	--	--	--	--	8.6E+05	2.3E+05	na	--
TRC	0	1.9E+01	1.1E+01	na	--	1.9E+01	1.1E+01	na	--	--	--	--	--	--	--	--	--	1.9E+01	1.1E+01	na	--
Chlorobenzene	0	--	--	na	1.6E+03	--	--	na	1.6E+03	--	--	--	--	--	--	--	--	--	--	na	1.6E+03

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Chlorodibromomethane[C]	0	--	--	na	1.3E+02	--	--	na	1.3E+02	--	--	--	--	--	--	--	--	--	--	na	1.3E+02
Chloroform	0	--	--	na	1.1E+04	--	--	na	1.1E+04	--	--	--	--	--	--	--	--	--	--	na	1.1E+04
2-Chloronaphthalene	0	--	--	na	1.6E+03	--	--	na	1.6E+03	--	--	--	--	--	--	--	--	--	--	na	1.6E+03
2-Chlorophenol	0	--	--	na	1.5E+02	--	--	na	1.5E+02	--	--	--	--	--	--	--	--	--	--	na	1.5E+02
Chlorpyrifos	0	8.3E-02	4.1E-02	na	--	8.3E-02	4.1E-02	na	--	--	--	--	--	--	--	--	--	8.3E-02	4.1E-02	na	--
Chromium III	0	3.2E+02	4.2E+01	na	--	3.2E+02	4.2E+01	na	--	--	--	--	--	--	--	--	--	3.2E+02	4.2E+01	na	--
Chromium VI	0	1.6E+01	1.1E+01	na	--	1.6E+01	1.1E+01	na	--	--	--	--	--	--	--	--	--	1.6E+01	1.1E+01	na	--
Chromium, Total	0	--	--	1.0E+02	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Chrysene[C]	0	--	--	na	1.8E-02	--	--	na	1.8E-02	--	--	--	--	--	--	--	--	--	--	na	1.8E-02
Copper	0	7.0E+00	5.0E+00	na	--	7.0E+00	5.0E+00	na	--	--	--	--	--	--	--	--	--	7.0E+00	5.0E+00	na	--
Cyanide, Free	0	2.2E+01	5.2E+00	na	1.6E+04	2.2E+01	5.2E+00	na	1.6E+04	--	--	--	--	--	--	--	--	2.2E+01	5.2E+00	na	1.6E+04
DDD[C]	0	--	--	na	3.1E-03	--	--	na	3.1E-03	--	--	--	--	--	--	--	--	--	--	na	3.1E-03
DDE[C]	0	--	--	na	2.2E-03	--	--	na	2.2E-03	--	--	--	--	--	--	--	--	--	--	na	2.2E-03
DDT[C]	0	1.1E+00	1.0E-03	na	2.2E-03	1.1E+00	1.0E-03	na	2.2E-03	--	--	--	--	--	--	--	--	1.1E+00	1.0E-03	na	2.2E-03
Demeton	0	--	1.0E-01	na	--	--	1.0E-01	na	--	--	--	--	--	--	--	--	--	--	1.0E-01	na	--
Diazinon	0	1.7E-01	1.7E-01	na	--	1.7E-01	1.7E-01	na	--	--	--	--	--	--	--	--	--	1.7E-01	1.7E-01	na	--
Dibenz(a,h)anthracene[C]	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
1,2-Dichlorobenzene	0	--	--	na	1.3E+03	--	--	na	1.3E+03	--	--	--	--	--	--	--	--	--	--	na	1.3E+03
1,3-Dichlorobenzene	0	--	--	na	9.6E+02	--	--	na	9.6E+02	--	--	--	--	--	--	--	--	--	--	na	9.6E+02
1,4-Dichlorobenzene	0	--	--	na	1.9E+02	--	--	na	1.9E+02	--	--	--	--	--	--	--	--	--	--	na	1.9E+02
3,3-Dichlorobenzidine[C]	0	--	--	na	2.8E-01	--	--	na	2.8E-01	--	--	--	--	--	--	--	--	--	--	na	2.8E-01
Dichlorobromomethane[C]	0	--	--	na	1.7E+02	--	--	na	1.7E+02	--	--	--	--	--	--	--	--	--	--	na	1.7E+02
1,2-Dichloroethane[C]	0	--	--	na	3.7E+02	--	--	na	3.7E+02	--	--	--	--	--	--	--	--	--	--	na	3.7E+02
1,1-Dichloroethylene	0	--	--	na	7.1E+03	--	--	na	7.1E+03	--	--	--	--	--	--	--	--	--	--	na	7.1E+03
1,2-trans-dichloroethylene	0	--	--	na	1.0E+04	--	--	na	1.0E+04	--	--	--	--	--	--	--	--	--	--	na	1.0E+04
2,4-Dichlorophenol	0	--	--	na	2.9E+02	--	--	na	2.9E+02	--	--	--	--	--	--	--	--	--	--	na	2.9E+02
2,4-Dichlorophenoxy acetic acid (2,4-D)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
1,2-Dichloropropane[C]	0	--	--	na	1.5E+02	--	--	na	1.5E+02	--	--	--	--	--	--	--	--	--	--	na	1.5E+02
1,3-Dichloropropene[C]	0	--	--	na	2.1E+02	--	--	na	2.1E+02	--	--	--	--	--	--	--	--	--	--	na	2.1E+02
Dieldrin[C]	0	2.4E-01	5.6E-02	na	5.4E-04	2.4E-01	5.6E-02	na	5.4E-04	--	--	--	--	--	--	--	--	2.4E-01	5.6E-02	na	5.4E-04
Diethyl Phthalate	0	--	--	na	4.4E+04	--	--	na	4.4E+04	--	--	--	--	--	--	--	--	--	--	na	4.4E+04
2,4-Dimethylphenol	0	--	--	na	8.5E+02	--	--	na	8.5E+02	--	--	--	--	--	--	--	--	--	--	na	8.5E+02
Dimethyl Phthalate	0	--	--	na	1.1E+06	--	--	na	1.1E+06	--	--	--	--	--	--	--	--	--	--	na	1.1E+06
Di-n-Butyl Phthalate	0	--	--	na	4.5E+03	--	--	na	4.5E+03	--	--	--	--	--	--	--	--	--	--	na	4.5E+03
2,4 Dinitrophenol	0	--	--	na	5.3E+03	--	--	na	5.3E+03	--	--	--	--	--	--	--	--	--	--	na	5.3E+03
2-Methyl-4,6-Dinitrophenol	0	--	--	na	2.8E+02	--	--	na	2.8E+02	--	--	--	--	--	--	--	--	--	--	na	2.8E+02
2,4-Dinitrotoluene[C]	0	--	--	na	3.4E+01	--	--	na	3.4E+01	--	--	--	--	--	--	--	--	--	--	na	3.4E+01
Dioxin 2,3,7,8-tetrachlorodibenzo-p-dioxin	0	--	--	na	5.1E-08	--	--	na	5.1E-08	--	--	--	--	--	--	--	--	--	--	na	5.1E-08
1,2-Diphenylhydrazine[C]	0	--	--	na	2.0E+00	--	--	na	2.0E+00	--	--	--	--	--	--	--	--	--	--	na	2.0E+00
Alpha-Endosulfan	0	2.2E-01	5.6E-02	na	8.9E+01	2.2E-01	5.6E-02	na	8.9E+01	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	na	8.9E+01
Beta-Endosulfan	0	2.2E-01	5.6E-02	na	8.9E+01	2.2E-01	5.6E-02	na	8.9E+01	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	na	8.9E+01
Alpha + Beta Endosulfan	0	2.2E-01	5.6E-02	--	--	2.2E-01	5.6E-02	--	--	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	--	--
Endosulfan Sulfate	0	--	--	na	8.9E+01	--	--	na	8.9E+01	--	--	--	--	--	--	--	--	--	--	na	8.9E+01
Endrin	0	8.6E-02	3.6E-02	na	6.0E-02	8.6E-02	3.6E-02	na	6.0E-02	--	--	--	--	--	--	--	--	8.6E-02	3.6E-02	na	6.0E-02
Endrin Aldehyde	0	--	--	na	3.0E-01	--	--	na	3.0E-01	--	--	--	--	--	--	--	--	--	--	na	3.0E-01

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Ethylbenzene	0	--	--	na	2.1E+03	--	--	na	2.1E+03	--	--	--	--	--	--	--	--	--	--	na	2.1E+03
Fluoranthene	0	--	--	na	1.4E+02	--	--	na	1.4E+02	--	--	--	--	--	--	--	--	--	--	na	1.4E+02
Fluorene	0	--	--	na	5.3E+03	--	--	na	5.3E+03	--	--	--	--	--	--	--	--	--	--	na	5.3E+03
Foaming Agents	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Guthion	0	--	1.0E-02	na	--	--	1.0E-02	na	--	--	--	--	--	--	--	--	--	--	1.0E-02	na	--
Heptachlor [C]	0	5.2E-01	3.8E-03	na	7.9E-04	5.2E-01	3.8E-03	na	7.9E-04	--	--	--	--	--	--	--	--	5.2E-01	3.8E-03	na	7.9E-04
Heptachlor Epoxide[C]	0	5.2E-01	3.8E-03	na	3.9E-04	5.2E-01	3.8E-03	na	3.9E-04	--	--	--	--	--	--	--	--	5.2E-01	3.8E-03	na	3.9E-04
Hexachlorobenzene[C]	0	--	--	na	2.9E-03	--	--	na	2.9E-03	--	--	--	--	--	--	--	--	--	--	na	2.9E-03
Hexachlorobutadiene[C]	0	--	--	na	1.8E+02	--	--	na	1.8E+02	--	--	--	--	--	--	--	--	--	--	na	1.8E+02
Hexachlorocyclohexane Alpha-BHC[C]	0	--	--	na	4.9E-02	--	--	na	4.9E-02	--	--	--	--	--	--	--	--	--	--	na	4.9E-02
Hexachlorocyclohexane Beta-BHC[C]	0	--	--	na	1.7E-01	--	--	na	1.7E-01	--	--	--	--	--	--	--	--	--	--	na	1.7E-01
Hexachlorocyclohexane Gamma-BHC[C] (Lindane)	0	9.5E-01	na	na	1.8E+00	9.5E-01	--	na	1.8E+00	--	--	--	--	--	--	--	--	9.5E-01	--	na	1.8E+00
Hexachlorocyclopentadiene	0	--	--	na	1.1E+03	--	--	na	1.1E+03	--	--	--	--	--	--	--	--	--	--	na	1.1E+03
Hexachloroethane[C]	0	--	--	na	3.3E+01	--	--	na	3.3E+01	--	--	--	--	--	--	--	--	--	--	na	3.3E+01
Hydrogen Sulfide	0	--	2.0E+00	na	--	--	2.0E+00	na	--	--	--	--	--	--	--	--	--	--	2.0E+00	na	--
Indeno (1,2,3-cd) pyrene [C]	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
Iron	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Isophorone[C]	0	--	--	na	9.6E+03	--	--	na	9.6E+03	--	--	--	--	--	--	--	--	--	--	na	9.6E+03
Kepone	0	--	0.0E+00	na	--	--	0.0E+00	na	--	--	--	--	--	--	--	--	--	--	0.0E+00	na	--
Lead	0	4.9E+01	5.6E+00	na	--	4.9E+01	5.6E+00	na	--	--	--	--	--	--	--	--	--	4.9E+01	5.6E+00	na	--
Malathion	0	--	1.0E-01	na	--	--	1.0E-01	na	--	--	--	--	--	--	--	--	--	--	1.0E-01	na	--
Manganese	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Mercury	0	1.4E+00	7.7E-01	--	--	1.4E+00	7.7E-01	--	--	--	--	--	--	--	--	--	--	1.4E+00	7.7E-01	--	--
Methyl Bromide	0	--	--	na	1.5E+03	--	--	na	1.5E+03	--	--	--	--	--	--	--	--	--	--	na	1.5E+03
Methylene Chloride [C]	0	--	--	na	5.9E+03	--	--	na	5.9E+03	--	--	--	--	--	--	--	--	--	--	na	5.9E+03
Methoxychlor	0	--	3.0E-02	na	--	--	3.0E-02	na	--	--	--	--	--	--	--	--	--	--	3.0E-02	na	--
Mirex	0	--	0.0E+00	na	--	--	0.0E+00	na	--	--	--	--	--	--	--	--	--	--	0.0E+00	na	--
Nickel	0	1.0E+02	1.1E+01	na	4.6E+03	1.0E+02	1.1E+01	na	4.6E+03	--	--	--	--	--	--	--	--	1.0E+02	1.1E+01	na	4.6E+03
Nitrate (as N)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Nitrobenzene	0	--	--	na	6.9E+02	--	--	na	6.9E+02	--	--	--	--	--	--	--	--	--	--	na	6.9E+02
N-Nitrosodimethylamine[C]	0	--	--	na	3.0E+01	--	--	na	3.0E+01	--	--	--	--	--	--	--	--	--	--	na	3.0E+01
N-Nitrosodiphenylamine[C]	0	--	--	na	6.0E+01	--	--	na	6.0E+01	--	--	--	--	--	--	--	--	--	--	na	6.0E+01
N-Nitrosodi-n-propylamine[C]	0	--	--	na	5.1E+00	--	--	na	5.1E+00	--	--	--	--	--	--	--	--	--	--	na	5.1E+00
Nonylphenol	0	2.8E+01	6.6E+00	--	--	2.8E+01	6.6E+00	na	--	--	--	--	--	--	--	--	--	2.8E+01	6.6E+00	na	--
Parathion	0	6.5E-02	1.3E-02	na	--	6.5E-02	1.3E-02	na	--	--	--	--	--	--	--	--	--	6.5E-02	1.3E-02	na	--
PCB Total[C]	0	--	1.4E-02	na	6.4E-04	--	1.4E-02	na	6.4E-04	--	--	--	--	--	--	--	--	--	1.4E-02	na	6.4E-04
Pentachlorophenol [C]	0	7.7E-03	5.9E-03	na	3.0E+01	7.7E-03	5.9E-03	na	3.0E+01	--	--	--	--	--	--	--	--	7.7E-03	5.9E-03	na	3.0E+01
Phenol	0	--	--	na	8.6E+05	--	--	na	8.6E+05	--	--	--	--	--	--	--	--	--	--	na	8.6E+05
Pyrene	0	--	--	na	4.0E+03	--	--	na	4.0E+03	--	--	--	--	--	--	--	--	--	--	na	4.0E+03
Radionuclides	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Gross Alpha Activity (pCi/L)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Beta and Photon Activity (mrem/yr)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Radium 226 + 228 (pCi/L)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Uranium (ug/l)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Selenium, Total Recoverable	0	2.0E+01	5.0E+00	na	4.2E+03	2.0E+01	5.0E+00	na	4.2E+03	--	--	--	--	--	--	--	--	2.0E+01	5.0E+00	na	4.2E+03
Silver	0	1.0E+00	--	na	--	1.0E+00	--	na	--	--	--	--	--	--	--	--	--	1.0E+00	--	na	--
Sulfate	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
1,1,2,2-Tetrachloroethane[C]	0	--	--	na	4.0E+01	--	--	na	4.0E+01	--	--	--	--	--	--	--	--	--	--	na	4.0E+01
Tetrachloroethylene[C]	0	--	--	na	3.3E+01	--	--	na	3.3E+01	--	--	--	--	--	--	--	--	--	--	na	3.3E+01
Thallium	0	--	--	na	4.7E-01	--	--	na	4.7E-01	--	--	--	--	--	--	--	--	--	--	na	4.7E-01
Toluene	0	--	--	na	6.0E+03	--	--	na	6.0E+03	--	--	--	--	--	--	--	--	--	--	na	6.0E+03
Total dissolved solids	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Toxaphene [C]	0	7.3E-01	2.0E-04	na	2.8E-03	7.3E-01	2.0E-04	na	2.8E-03	--	--	--	--	--	--	--	--	7.3E-01	2.0E-04	na	2.8E-03
Tributyltin	0	4.6E-01	7.2E-02	na	--	4.6E-01	7.2E-02	na	--	--	--	--	--	--	--	--	--	4.6E-01	7.2E-02	na	--
1,2,4-Trichlorobenzene	0	--	--	na	7.0E+01	--	--	na	7.0E+01	--	--	--	--	--	--	--	--	--	--	na	7.0E+01
1,1,2-Trichloroethane[C]	0	--	--	na	1.6E+02	--	--	na	1.6E+02	--	--	--	--	--	--	--	--	--	--	na	1.6E+02
Trichloroethylene [C]	0	--	--	na	3.0E+02	--	--	na	3.0E+02	--	--	--	--	--	--	--	--	--	--	na	3.0E+02
2,4,6-Trichlorophenol [C]	0	--	--	na	2.4E+01	--	--	na	2.4E+01	--	--	--	--	--	--	--	--	--	--	na	2.4E+01
2-(2,4,5-Trichlorophenoxy) propionic acid (Silvex)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Vinyl Chloride[C]	0	--	--	na	2.4E+01	--	--	na	2.4E+01	--	--	--	--	--	--	--	--	--	--	na	2.4E+01
Zinc	0	6.5E+01	6.6E+01	na	2.6E+04	6.5E+01	6.6E+01	na	2.6E+04	--	--	--	--	--	--	--	--	6.5E+01	6.6E+01	na	2.6E+04

Notes:

1. All concentrations expressed as micrograms/liter (ug/l), unless noted otherwise
2. Discharge flow is highest monthly average or Form 2C maximum for Industries and design flow for Municipals
3. Metals measured as Dissolved, unless specified otherwise
4. "C" indicates a carcinogenic parameter
5. Regular WLAs are mass balances (minus background concentration) using the % of stream flow entered above under Mixing Information.
   Antidegradation WLAs are based upon a complete mix.
6. Antideg. Baseline = (0.25(WQC - background conc.) + background conc.) for acute and chronic
   = (0.1(WQC - background conc.) + background conc.) for human health
7. WLAs established at the following stream flows: 1Q10 for Acute, 30Q10 for Chronic Ammonia, 7Q10 for Other Chronic, 30Q5 for Non-carcinogens and Harmonic Mean for Carcinogens. To apply mixing ratios from a model set the stream flow equal to (mixing ratio - 1), effluent flow equal to 1 and 100% mix.

Metal	Target Value (SSTV)
Antimony	6.4E+02
Arsenic	9.0E+01
Barium	na
Cadmium	3.9E-01
Chromium III	2.5E+01
Chromium VI	6.4E+00
Copper	2.8E+00
Iron	na
Lead	3.4E+00
Manganese	na
Mercury	4.6E-01
Nickel	6.8E+00
Selenium	3.0E+00
Silver	4.2E-01
Zinc	2.6E+01

Note: do not use QL's lower than the minimum QL's provided in agency guidance

VA0091332 ODEC - Louisa Generation Effluent pH Data

Due*	Outfall	Parameter Description	Concentration Minimum	Limit Minimum	Concentration Maximum	Limit Maximum	Comments
10/10/09	001	pH (S.U.)	8.21	6.0	8.21	9.0	DMR
10/10/10	001	pH (S.U.)	7.55	6.0	7.55	9.0	DMR
10/10/11	001	pH (S.U.)	7.36	6.0	7.36	9.0	DMR
10/10/12	001	pH (S.U.)	7.79	6.0	7.79	9.0	DMR

90% pH = 8.1 S.U.

*DMR reporting is required on an annual basis. The sample due date reflects the pH sample collected during the previous year. Because only one sample is required per year, only the concentration maximum value was used to calculate the 90% pH.

5/29/2013 10:49:10 AM

Facility = ODEC - Louisa Generation
Chemical = Chlorine
Chronic averaging period = 4
WLAa = 0.019
WLAc = 0.011
Q.L. = 0.10
# samples/mo. = 1
# samples/wk. = 1

Summary of Statistics:

observations = 1
Expected Value = .2
Variance = .0144
C.V. = 0.6
97th percentile daily values = .486683
97th percentile 4 day average = .332758
97th percentile 30 day average= .241210
< Q.L. = 0
Model used = BPJ Assumptions, type 2 data

A limit is needed based on Chronic Toxicity
Maximum Daily Limit = 1.60883226245855E-02
Average Weekly limit = 1.60883226245855E-02
Average Monthly LImit = 1.60883226245855E-02

The data are:

0.2

5/30/2013 8:41:17 AM

Facility = ODEC - Louisa Generation
Chemical = Copper
Chronic averaging period = 4
WLAa = 7
WLAc = 5
Q.L. = 2.8
# samples/mo. = 1
# samples/wk. = 1

Summary of Statistics:

observations = 1
Expected Value =
Variance =
C.V. =
97th percentile daily values =
97th percentile 4 day average =
97th percentile 30 day average=
< Q.L. = 1
Model used =

No Limit is required for this material

The data are:

1.46

5/30/2013 8:41:48 AM

Facility = ODEC - Louisa Generation
Chemical = Lead
Chronic averaging period = 4
WLAa = 49
WLAc = 5.6
Q.L. = 3.4
# samples/mo. = 1
# samples/wk. = 1

Summary of Statistics:

observations = 1
Expected Value =
Variance =
C.V. =
97th percentile daily values =
97th percentile 4 day average =
97th percentile 30 day average=
< Q.L. = 1
Model used =

No Limit is required for this material

The data are:

0.125

5/30/2013 8:42:22 AM

Facility = ODEC - Louisa Generation
Chemical = Mercury
Chronic averaging period = 4
WLAa = 1.4
WLAc = 0.77
Q.L. = 0.46
# samples/mo. = 1
# samples/wk. = 1

Summary of Statistics:

observations = 1
Expected Value =
Variance =
C.V. =
97th percentile daily values =
97th percentile 4 day average =
97th percentile 30 day average=
< Q.L. = 1
Model used =

No Limit is required for this material

The data are:

0.0035

5/30/2013 8:42:51 AM

Facility = ODEC - Louisa Generation
Chemical = Zinc
Chronic averaging period = 4
WLAa = 65
WLAc = 66
Q.L. = 26
# samples/mo. = 1
# samples/wk. = 1

Summary of Statistics:

observations = 1
Expected Value =
Variance =
C.V. =
97th percentile daily values =
97th percentile 4 day average =
97th percentile 30 day average=
< Q.L. = 1
Model used =

No Limit is required for this material

The data are:

8.05

Public Notice – Environmental Permit

PURPOSE OF NOTICE: To seek public comment on a draft permit from the Department of Environmental Quality that will allow the release of treated industrial wastewater and storm water into a water body in Louisa County, Virginia.

PUBLIC COMMENT PERIOD: July 12, 2013 to August 12, 2013

PERMIT NAME: Virginia Pollutant Discharge Elimination System Permit – Industrial Storm Water issued by DEQ, under the authority of the State Water Control Board

APPLICANT NAME, ADDRESS AND PERMIT NUMBER: Old Dominion Electric Cooperative, 4201 Dominion Boulevard, Glen Allen, VA 23060, VA0091332

NAME AND ADDRESS OF FACILITY: Old Dominion Electric Cooperative – Louisa Generation Facility, 3352 Klockner Road, Gordonsville, VA 22942

PROJECT DESCRIPTION: Old Dominion Electric Cooperative has applied for a reissuance of a permit for the private Old Dominion Electric Cooperative – Louisa Generation Facility. The applicant proposes to release treated industrial wastewaters and storm water at a rate of 0.090 million gallons per day into a water body. The facility proposes to release the treated industrial wastewaters and storm water in to two unnamed tributaries to Happy Creek in Louisa County in the York River watershed. A watershed is the land area drained by a river and its incoming streams. The permit will limit the following pollutants to amounts that protect water quality: pH, Total Suspended Solids, Total Petroleum Hydrocarbons, and Total Residual Chlorine. The permit will also monitor the following pollutants to protect water quality: Dissolved Copper, Dissolved Lead, Dissolved Mercury, Dissolved Zinc, and Total Hardness.

HOW TO COMMENT AND/OR REQUEST A PUBLIC HEARING: DEQ accepts comments and requests for public hearing by hand-delivery, e-mail, fax or postal mail. All comments and requests must be in writing and be received by DEQ during the comment period. Submittals must include the names, mailing addresses and telephone numbers of the commenter/requester and of all persons represented by the commenter/requester. A request for public hearing must also include: 1) The reason why a public hearing is requested. 2) A brief, informal statement regarding the nature and extent of the interest of the requester or of those represented by the requester, including how and to what extent such interest would be directly and adversely affected by the permit. 3) Specific references, where possible, to terms and conditions of the permit with suggested revisions. A public hearing may be held, including another comment period, if public response is significant, based on individual requests for a public hearing, and there are substantial, disputed issues relevant to the permit.

CONTACT FOR PUBLIC COMMENTS, DOCUMENT REQUESTS AND ADDITIONAL INFORMATION: The public may review the draft permit and application at the DEQ-Northern Regional Office by appointment, or may request electronic copies of the draft permit and fact sheet.
Name: Susan Mackert
Address: DEQ-Northern Regional Office, 13901 Crown Court, Woodbridge, VA 22193
Phone: (703) 583-3853 E-mail: susan.mackert@deq.virginia.gov Fax: (703) 583-3821